The exploitation of shellfish by coastal tribesmen of the Transkei

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The consumption of shellfish by non-Bantu groups who lived along the south and south-east coast of South Africa has been extensively documented in archaeological literature. Travellers' accounts and early ethnographic descriptions of the Bantu-speaking peoples of the present-day Transkei and Ciskei with few exceptions stress the absence of a tradition of fishing (Alberti, 1968, p. 25; Barrow, 1801, p. 211; Brownlee, 1827, 2, p. 216; Kropf, 1889, p. 102, Vanderkemp, 1803, p. 436), often ascribing it to a prohibition against eating fish. Only two of the nineteenth-century writers specifically mention the use of shellfish as food, namely Lichtenstein (1928, 1, p. 335) and Kay (1833, p. 354), the latter in reference to the Tshezi, living near the mouth of the Umtata River. In the twentieth century, only Hunter (1936, p. 96), in her monograph on the Mpondo, devotes any attention (two paragraphs) to fishing and shellfish gathering. Holt's recent account of the Tshezi, who are culturally assimilated to the Bomvana, makes passing mention of the use of fish and shellfish. Thus, there appears to be no detailed treatment of this subject in the published literature on the Southern Nguni.

The present study was undertaken with two objectives in view. One was to fill the gap in the ethnography of the Southern Nguni living in the coastal districts of the Transkei; the other was to provide comparative data for an archaeologist colleague engaged in the analysis of shell material from prehistoric coastal middens. It presents data collected between 1969 and 1972 in the Transkeian districts of Kentani, Willowvale, Elliotdale, Mqanduli, Ngqeleni, Lusikisiki and Bizana. The groups studied in the first two districts were Xhosa, in the third and fourth, Bomvana and in the last three, Mpondo. "Shellfish" in this context is taken to include crayfish, red bait and barnacles, in addition to mollusca proper.

The material culture of the tribes making up the Southern Nguni is basically very similar. Techniques for the collection, preparation and uses of shellfish all along the Transkei coast are sufficiently alike for the three tribes to be treated as one in the present context but tribal differences will be indicated where they occur.

Collecting (Xhosa and Bomvana: *ukuxeza;* Mpondo: *ukuxoza*) is done almost exclusively by women. At all the places visited, the range of females collecting included anyone from small girls to grey-headed old women. At least one pregnant woman was observed collecting shellfish. Only one adult male was seen gathering them, at Mbotyi. While a few small boys were occasionally seen accompanying parties of women shellfish collectors, their contributions to the day's pickings were small. Usually they merely played on the rocks. Women and girls may work individually or in parties. Such parties vary in size between one

and as many as fifteen. The largest party found to be from one household consisted of three married women, two of them the wives of brothers, the third being the wife of a husband's brother's son. At Mzamba, in eastern Pondoland, married women were seen catching crayfish but elsewhere among the Mpondo (at Mbotyi) and at all points westward, only youths catch crayfish. Line fishing is the concern of men and youths alone. This practice, seldom observed during the research, appears to be restricted and was not studied.

While women and girls on their way to the collecting areas wear the dress appropriate to their age and status, clothing is changed before the work commences. Old clothing brought along for the purpose is put on in the shelter of rocks or nearby bushes. In contrast to the normal custom that married women keep their breasts and heads covered at all times, especially when in their husbands' homesteads, collectors are often seen on the shore with breasts exposed and heads uncovered, Prepubertal and adolescent girls wear only some form of skirt, often very brief. Neither women nor girls use footwear while collecting. When the work has been completed they change back into normal dress before returning home.

As the details of types of shellfish collected will show, all the species occur in the balanoid and cochlear zones of the inter-tidal area. Coastal Africans are aware of tidal movements and know that spring tides occur at full moon and new moon. Informants repeatedly said that these were the best times for collecting and that it was then possible to go far out on the rocks and obtain the largest shellfish. From the fact that collectors were observed arriving at the shore later on successive days following the spring tide at full moon, it appears that they are aware also of the time difference between tides each day. According to Hunter (1936, 96), knowledge of tidal alternation predated the arrival of the white man.

Information about the regularity with which women go to the rocks to remove shellfish was difficult to obtain. Informants said that not all women from areas close to the sea went to collect each day when the weather and tide were favourable. It depended on whether they and their families particularly liked or were hungry for shellfish. A young woman at Ntlonyane said that she went to collect perhaps once a month, both because she was lazy and she feared the sea. At Ntlonyane and Mbotyi, during a continuous spell of good weather at spring low tide, the same women were encountered on the rocks for three days running. Informants said that they would sometimes go to fetch shellfish during other phases of the moon, depending on the demand for this kind of food. At all places visited, informants said that little collecting was done in winter because the shellfish were seldom accessible and their condition not as good as at other times of year, particularly summer. They reported that the flavour was better in summer than in winter but that shellfish were eaten at all seasons.

Although the Transkei is within the red tide zone, informants claimed that mussels were not known to cause illness at any time of the year; in fact, they had never been known to cause illness. The Africans conceded that people sometimes became ill after eating shellfish but attributed this to over-indulgence, especially in the case of children. It is possible that these coastal Africans do not associate the consumption of certain foods with subsequent illness. This is claimed to be the case with plants used as food or medicine (Dr. E. Rose, pers. comm.).

Irrespective of the time of low tide, all collecting appears to be confined to the morning and the early afternoon, though at Mbotyi an informant claimed that people did sometimes collect during the afternoon. In no case was any collecting observed before 8 a.m. or after 2.30 p.m. When shellfish were collected from the cochlear zone, as observed at Kobonqaba, the time spent on the rocks did not exceed two hours. The party of women who were kept under observation arrived on the rocks at 8.10 a.m. and stopped collecting at 10.10 a.m., when they had decided that the tide was turning and that it would no longer be possible to continue.

The mode of collecting can be divided into two phases, gradually merging into each other and dictated by the falling of the tide. The first phase saw the women picking what they could from the rocks in the upper balanoid zone as the water receded. Though the work of removing shellfish was at all times done quickly, this first phase was not characterised by the urgency of the one which followed. During the second phase, the women moved onto the exposed rocks furthest out; such rocks were frequently still in the surf. Here the work was done with all possible speed, the women constantly throwing glances at the sea and withdrawing to higher rocks when they noticed a dangerous wave approaching. At Shixini, where women spent three hours collecting, their movements on the rocks followed the same pattern.

The equipment for collecting shellfish is simple. Those molluscs which are easy to dislodge (e.g. *Oxystele*, *Turbo*, *Charonia*, *Thais* and *Burnupena*) are removed from the rocks or the seaweed by hand. *Patellidae*, *Haliotis* and clumps of *Perna perna* are removed from the rocks by means of a narrow, flat iron or steel bar (*ulugxa;* at Mbotyi, also *umbutu*) resembling a tyre lever, held in the right hand (no left-handers were observed), while the left hand grasps the dislodged shell. *Patellidae* are removed singly but *Perna* in clusters, together with any seaweed attached. The shells are then placed in a receptacle which is held in the hand or stands nearby, or in a sack tied round the waist and forming a kind of pouch, which is emptied into a basin or billycan from time to time. The work is done quickly, particularly during the second phase, the main object being to gather as much from the fringe of the surf as time permits. Shell damage occurs, as when the edges of the shells are chipped or broken. A variety of containers is used, including tin basins, small tin billycans (*iibekile*), plastic buckets, traditional grain baskets (*iingobozi*) and small sacks, either of jute or polythene. These receptacles may be held in the hand or tied to a belt, which permits easier movement when collecting.

When the receptacle has been filled—the rate at which this is done depends on whether collecting is in the first or second phase—it is taken to the rocks a little distance from the immediate collecting area and emptied. Each collector makes her own pile, with the exception that children add their pickings to their mothers' piles. Shortly before leaving the rocks, the women sort perfunctorily through their piles of shellfish, picking off bits of seaweed and discarding mussels they consider too small to be worthwhile taking home. There are few discards. To remove sea sand, sea water is thrown over the pile a few times. Afterwards all the shellfish are packed into the collector's receptacle and placed on the head, to be carried home.

Coastal informants remarked that they took the consumption of shellfish for granted but that people from further inland were unfamiliar with this food and expressed revulsion when offered it. As regards the distance travelled to collect shellfish, at Kobonqaba, where homesteads are not built closer than two miles from the coast, one party of women travelled three miles to collect shellfish. At Shixini, women were encountered returning from shellfish collecting at a spot approximately two miles from the coast. At Hluleka homesteads two miles from the coast had middens containing shells or had shells scattered about their gardens. At Dwessa and Mbotyi informants claimed that people living about five or six miles distant from the coast came there to obtain shellfish. An Mbotyi informant said that these people brought donkeys to carry back what they had collected and would even stay overnight in order to be able to take advantage of a morning low tide. This information seems to bear out Hunter's observation that six or seven miles inland is the limit beyond which people do not go fishing or shell-fishing.

Allowing for the differential abundances of species, depending on natural distribution, a broadly similar range of shellfish is eaten all along the coast. The following species were present in modern middens or in meal remains (as indicated below) at the following places:

Species list: × = present; — = absent

Species	Locality								
	Xora Mouth	Kobo-nqaba	Shixini	Dwessa	Ntlo-nyane	Hole-in-the-Wall	Hluleka	Mbotyi	Mzamba
Panulirus sp.	—	—	—	—	—	—	×	×	×
Balanus sp.	×	×	×	×	×	×	×	×	—
Dinoplax sp.	—	×	×	×	×	×	×	×	×
Fissurella natalensis	×	—	×	—	×	—	×	×	×
Haliotis midae	—	×	×	×	×	—	×	×	×
H. spadicea	—	×	×	×	×	×	×	×	—
Turbo coronatus	×	—	—	—	×	—	×	—	×
Turbo natalensis	×	—	×	—	×	×	—	—	—
Turbo sarmaticus	—	×	×	×	×	×	—	—	×
Charonia lampas pustulata	—	×	×	×	×	×	×	×	×
urnupena papyracea lagenaria	×	—	×	—	×	×	—	×	×
Burnupena sp.	—	—	×	—	×	—	—	—	—
Oxystele sinensis	—	×	×	—	×	—	—	—	—
Oxystele tabularis									
Oxystele tigrina	—	—	×	×	×	—	—	×	—
Oxystele variegata	—	—	—	—	×	×	—	—	—
Oxystele sp.	—	×	—	×	×	—	—	—	—
Thais capensis	×	—	—	—	×	×	×	×	—
Thais sp.	—	—	×	—	—	—	—	—	—
Nerita albicilla	×	—	—	—	—	—	—	—	—
Nerita plicata	—	—	—	×	—	—	—	—	—
Nerita sp.	—	—	—	—	×	—	—	—	—
Monodonta australis	×	—	—	—	—	—	—	—	—
Patella barbara	—	—	×	—	×	—	—	×	—
Patella cochlear	—	×	×	×	×	×	×	×	×
Patella granularis	×	×	×	—	×	—	—	×	×

Species	Locality								
	Xora Mouth	Kobo-nqaba	Shixini	Dwessa	Ntlo-nyane	Hole-in-the-Wall	Hluleka	Mbotyi	Mzamba
Patella longicosta	×	×	×	—	×	—	×	×	—
Patella miniata*	—	—	×	—	×	—	×	×	—
Patella oculus	—	—	×	—	×	—	—	×	—
Patella tabularis	×	—	—	—	×	—	×	×	—
Patella concolor†	×	—	×	—	×	×	×	×	×
Patella sp.	—	—	—	×	—	×	—	—	—
Siphonaria capensis	—	—	—	—	×	—	—	×	—
Helcion pectunculus	—	—	—	—	×	—	—	×	—
Helcion pruinosis	—	—	—	—	×	—	—	×	—
Cellana capensis	×	—	×	—	×	×	—	×	—
Perna perna	×	×	×	×	×	×	×	×	×
Drupa sp.	—	—	—	—	—	—	—	×	—
Septifer bilocularis	—	—	—	—	×	—	—	×	—
Crassostrea cucullata	—	—	×	—	×	—	—	×	×
Crassostrea margaritacae	—	—	×	×	×	×	×	×	×
Octopus	—	×	×	×	×	×	×	×	×
Pyura stolonifera	×	×	×	×	×	×	×	×	×
Echinodea	—	—	—	—	—	—	—	×	×

* P. miniata includes P. miniata miniata and P. miniata sanguinans
† Formerly P. variabilis

Although women were seen to eat uncooked shellfish such as limpets (*Patellidae* and *Cellana*) and redbait (*Pyura*) while collecting on the rocks, the bulk of what was collected was taken home in shells to be prepared there. Only at Mbotyi was a woman seen taking the meat of rock oysters (*Margaritacae cucullata*) and leaving the shells on the rocks. The analysis of empty shells resulting from the meals indicates that some people carry rock oysters in their shells to the homesteads. *Pyura stolonifera* (redbait) is always removed from its casing at the beach. The basic method of preparation of shellfish does not vary. A three-legged cast-iron pot is filled with a mixture of shellfish and a small quantity of water is poured over it. Some informants specified that seawater should be used because boiling with fresh water makes the flesh taste insipid. After the water has boiled and the foam risen, the pot is removed from the fire, though some women leave it to boil for about five minutes more. It was said that mussel shells open in boiling water, thus making the removal of the meat easy, and that those

shellfish with spiral shells come out easily when boiled. Informants said that this boiled meat, after washing, could be fried in vegetable oil or animal fat. At Hole-in-the-Wall (Mtonjane) the frying method was said to have been learned from white people. Except at Ntlonyane and Mzamba, all informants questioned about the method of consuming shellfish said that this food is eaten alone, never mixed with other foodstuffs. This was borne out on a number of field expeditions, when men, women and children were observed eating shellfish without accompaniments, either sitting down to a dish of this food alone or merely taking a few boiled shellfish to eat as they moved about the homestead.

At Ntlonyane an informant said that the liquid from boiled shellfish would be saved and mixed with boiled maize. At Mzamba, an Mpondo area in close proximity to the Natal border, a School informant described a mixture of fried shellfish and onions, added to *iphuthu* (stiff porridge). The addition of shellfish in Natal to other food was confirmed at Mbotyi by a visiting Natal Nguni woman from a coastal area. At Mbotyi a white and a black informant both independently reported the eating of sea urchins; the contents of the shell are eaten, raw.

No accurate indication of the proportion of shellfish meat to other types of food in the diet of coastal people is available. Information was, however, obtained about the quantities of shellfish gathered and the approximate weight of their contents consumed. This was done by weighing the takings of a number of women as they left the beaches at Ntlonyane and Mbotyi, and subsequently weighing the empty shells after the completion of the meal. The figures are as follows (weights in kilograms) (See bottom of following page).

These figures should be taken as a guide only; the weights of shellfish meat given above are not claimed to be absolutely accurate. When the raw shellfish is packed into a container for transfer to a homestead, it contains a certain amount of sea sand and there are usually bits of seaweed attached to many of the shells, particularly *Patellidae* gathered in the cochlear zone. The empty shells returned after meals were often found to include a small proportion of uneaten shellfish (mussels too small to open) and *Neritidae* which, though sometimes collected, are not eaten. Not all *operculi* of *Turbo* shells are returned and not all chiton plates are included among the empty shells. Octopus and crayfish are represented only in the volume of shells and raw flesh but leave no remains in the samples of empty shells. Thus the deduction of the weight of empty shells from the weight of total takings does not give the true figure for meat content. Further, *Pyura* flesh is removed from its casing on the beach, thus weights of meat given do not correspond exactly with the numbers of shells in each set of meal remains. However, it would be difficult to achieve more accurate results without exercising close control over the actual eating of the shellfish and causing chaos in the homesteads. No reason can be offered for the high average weight of meat per person in the meals numbered 2, 24, 25, 26 and 27, except that informants may not have given correct information about the numbers of people sharing their meal. Nevertheless, the figures indicate that the quantity of shellfish meat available in a number of routine collections at spring tide would contribute a significant amount of animal protein to the homestead diet.

Disposal of empty shells after a meal is effected in a number of ways. They may all be thrown onto one heap a little removed from the main outdoor living area where they will not get underfoot and possibly cause cuts. In the hilly coastal areas such middens are usually on sloping ground. One large modern midden at Ntlonyane was sited at the head of a donga and was thus subject to water action during heavy rains. Voigt's paper (in preparation) deals with an excavation and analysis of this midden. At Hole-in-the-Wall one homestead threw all its empty shells into a donga so that they would be removed by storm water. At other places, the remains of each shellfish-collecting expedition are thrown in a separate small heap, sometimes in the same area, so that there is a series of small heaps in a midden area. Another method is to scatter shells thinly over the garden usually found adjacent to every coastal homestead, in order to enrich the soil with calcium when the shells decompose.

The coastal people considered shellfish a substitute for meat, a point of view explicitly expressed by woman informants at Kobonqaba, Shixini, Dwessa and Mbotyi. A Shixini informant said that there is never enough shellfish available for it to be considered a replacement for meat. All people asked agreed that shellfish is a good food; this was frequently expressed as "*isondeza igazi*", meaning, figuratively, that it acts as a tonic.

The collection and eating of shellfish is remarkably free of restrictions imposed by custom and belief. At Kobonqaba a woman said she no longer went to collect since she had had twins because such people should not go to the sea. This was qualified by another informant in the same area who said that women who had borne twins could go collecting, provided that they first washed themselves with sea water on arrival at the shore. Even if the sea were rough, it would then become calm. At Mtonjane informants related the belief than one's luck is likely to be poor if one has had a long break from collecting; to counter this, women wash their faces in seawater before beginning to collect.

Only two categories of people are customarily forbidden to eat certain species of shellfish in general. *Abakhwetha* (young men in seclusion after circumcision) are prohibited from eating

Meal No.	Total catch	Empty weight	Approx. weight meat	Number people sharing	Ave. weight meat per person
Kobonqaba					
1	6,75	4,30	2,45	7	,350
2	4,45	1,84	2,61	2	1,300
Shixini					
3	,65	,45	,20	2	,100
4	1,95	1,15	,80	6	,166
5	2,35	2,23	,12	5	,240
6	,89	,55	,34	4	,085
7	5,30	4,20	1,10	3	,336
Ntlonyane					
8	2,78	2,06	,72	6	,120
9	4,31	2,05	2,26	4	,565
10	5,556	2,825	2,731	5	,546
11	2,891	1,470	1,421	4	,355
12	2,268	1,375	,839	4	,223
13	4,224	2,400	1,824	4	,456
14	3,061	1,520	1,547	4	,385
15	1,927	,780	1,147	4	,286
16	1,757	,560	1,197	3	,399
17	1,672	,700	,972	2	,486
18	4,337	2,260	2,077	4	,517
19	4,195	2,25	1,945	3	,648
20	2,551	,950	1,601	2	,800
21	3,799	1,650	2,149	4	,537
22	3,175	1,410	1,765	7	,252
23	2,324	,900	1,424	4	,356
Mbotyi					
24	17	9,1	7,900	6	1,310
25	17,9	9,6	8,300	10	,830
26	17,1	9,6	7,500	5	1,500
27	12,85	7,200	5,650	6	,940
28	2	1,200	,800	6	,133
29	1,65	1,54	,600	4	,150
30	3,90	2,17	1,87	6	,310
31	6	2,05	3,95	4	,870
32	6,10	4,21	1,91	7	,272
33	1,50	,80	,70	4	,175

shellfish. Informants explained this prohibition by saying that since the *abakhwetha* should have no contact with post-pubertal females, they must also avoid the shellfish collected by them. In fact, however, such women do prepare and, often, bring their food to them. At Mtonjane it was said that newly-married women are not supposed to eat shellfish. Married women, except in Pondoland, are not permitted to eat oysters (*iimbatyisa*) or crayfish (*ikolo-fish*, sometimes *isikhuphathi*) because they are believed to have aphrodisiac properties. At Ntlonyane, however, a post-menopausal woman whose shellfish harvest was found to contain oysters said that old women could eat them.

Seafoods or sea objects can be used as tools, ornaments and as medicine. A woman at Mbotyi was using limpet shells as spoons for feeding babies and as pot-scrapers. When tin caps are not used on the tops of the conical hut roofs, oyster shells are widely used to keep the earth cap in place. The shells of *Nerita textilis* are made into armbands and necklets by the Xhosa and Bomvana. Among the Bomvana and Mpondo, the tentacles of the octopus are used by young men as a love potion. The stomach (liver?) of the crayfish (considered by informants to be the brains) is used at Mbotyi to calm troublesome, crying children. This part is boiled in water and the child made to drink the water. At Mzamba it was claimed that a barren woman who takes to a diet containing a large proportion of shellfish will soon conceive. Crayfish eggs, mixed with herbs, are fed to cows, ewes and hens to promote fertility. Informants at Hluleka and Mzamba said that *umopu*, probably the "sea hare" (*Aplysia* sp.), is used as a medicine to stop the vomiting of blood. This creature is used because, when disturbed, it emits what informants called "blood" (possibly a substance used protectively to obscure the animal's movements); its use seems to fall into the category of sympathetic magic. Vomiting of blood is said to be stopped also by using the ground spines of the sea urchin, mixed with other medicines. Cuttlefish, scraped to a powder, is used in cases of sore eyes in humans and animals. Powdered oyster shell is used to whiten protective necklets worn by nursing mothers.

It is interesting to note that there is some awareness among the shellfish collectors of the conservation of resources. At every place visited along the coast, informants claimed that they did not take immature molluscs because they wished these to grow big so that they could be used at a later date. It was also claimed that big molluscs tasted better than immature ones. Possibly this is the ideal state of affairs which occurs under optimum collecting conditions, i.e. spring low tides during calm weather. In practice, during unfavourable collecting conditions, women were observed taking hundreds of small limpets with a maximum length of about 2,5 cm. Small girls collecting during fine weather at Mboyi confined themselves largely to limpets of this size. The suspicion could not be avoided that they did this in order to take advantage of the small inducement offered to those who allowed their collections to be weighed. In the absence of measures to acquaint the coastal people with the maximum numbers and sizes of *Perna perna*, *Turbo* and *Haliotis* permitted by legislation (of the species under discussion, these are the only ones so controlled) the gathering of undersized specimens must continue.

This raises the question of the effect of shellfish collecting on inter-tidal fauna. Although informants did state that uncooked shellfish could be kept overnight, except during very hot weather, on most of the occasions when the cooking process was observed, all the meat was eaten the same day. There was little wastage, this being confined to a few shells whose contents were overlooked and a small number of *Neritidae*, which are small enough shells to be gathered by accident if they are attached to the shells of species eaten. Collecting was selective in that people looked for and, usually, took only the species they were going to eat. Although most of the visits to gather data were arranged to coincide with spring low tides, visits have also been made to the Transkei coast at other times. It was only on the former occasion that substantial numbers of women were observed collecting. When the tides were normal, people were not

seen on the rocks. It appears also that little, if any, collecting is done during winter; informants state that results of winter collecting do not justify the effort. While Voigt's account of the transects (systematic surveys conducted by counting all examples of inter-tidal life in the balanoid and cochlear zones) of inter-tidal rocks carried out by her and her helpers will be useful and interesting, they will have to be supplemented by and correlated with a study of both the availability of shellfish and the degree of exploitation in particular spots along the coast. Only in this way can the effect of African dietary habits on the inter-tidal life be objectively established. During five years of visits to a number of places along the Transkei coast, the impression was gained that the frequency of collecting and the volume of shellfish taken does not have an adverse effect on inter-tidal life. Reasons such as lack of waste, selective and periodical picking have been advanced above. This impression is confirmed by some white residents of the Transkei with much longer experience of its coast. On the other hand, demand by white holiday makers must effect inter-tidal life. African youths are given orders for crayfish, and women for oysters, which are purchased in large quantities, particularly during school holidays. Informants at one place reported that a regular white visitor would buy all the available crayfish and freeze them.

How important a dietary component is shellfish? The traditional rôle of cattle in the Southern Nguni economy is axiomatic. Government control measures have resulted in stock limitation. Cattle have always been valued beyond their importance as a mere economic asset; nowadays they are slaughtered only for sacrifices to the ancestors. As these occasions are attended by large numbers of people, they provide each individual with the opportunity of eating only small quantities of animal protein. Even then, the men receive the larger share and women have to be satisfied with inferior cuts and small portions, though smaller children may receive many choice morsels from the men. Nor do other types of stock or poultry regularly provide significant amounts of animal protein. Goats, in Pondoland, sheep, are slaughtered for ritual purposes. Occasionally, also, a sheep is slaughtered to welcome an honoured guest. The hosts partake of its meat. Pigs and fowls are sometimes killed for meat but not regularly enough to provide a significant protein intake. Women customarily avoid eating eggs, so this source of protein is denied them. With reduced herd sizes, relatively little milk is available. Shellfish is therefore the only source of easily accessible animal protein available in quantity; it plays a highly important rôle in the diet of coastal African communities in the Transkei.

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APPENDIX 1: Species present in meal samples

+ = also present

	Locality: Shixini					
	Meal number					
	1	2	3	4	5	6
Panulirus sp.						
Balanus sp. fragments			155	217	6	13
Dinoplax sp. plates	26				8	4
Fissurella natalensis	2	1	4		3	28
Haliotis midae						
Haliotis spadicea			1			1
H. species						
Turbo coronatus						
Turbo natalensis			1		1	
Turbo sarmaticus				2	1	2
Charonia lampas pustulata						
Burnupena papyracea lagenaria		5		4	1	26
Oxystele sinensis					3	2
Oxystele tabularis						1
Oxystele tigrina						
Oxystele variegata						
Oxystele sp.						
Thais capensis				2		
Thais sp.		1	2			
Nerita albicilla						
Nerita plicata						
Nerita sp.						
Patella barbara			6		2	21
Patella cochlear		1				6
Patella granularis	2	13	2		1	35
Patella longicosta	19	2	22	7	9	139

	Locality: Shixini					
	Meal number					
	1	2	3	4	5	6
Patella miniata			2			5
Patella oculus	11	2	8	4	9	24
Patella tabularis						
Patella concolor						
Patella sp.						
Siphonaria capensis						
Helcion pectunculus						
Helcion pruinosis						
Cellana capensis	46	60	131	63	17	44
Perna perna	17	185	347	280	27	772
Septifer bilocularis						
Crassostrea cucullata				1		
Crassostrea margaritacae			1			
Pyura stolonifera				+		
Octopus				+		
Total Number of shells	123	270	682	580	88	1 123
Total Weight of full shells (kg)	,65	1,95	3,55	2,3	,89	5,3

	Locality: Ntlonyane					
	Meal number					
	7	8	9	10	11	12
Panulirus sp.						
Balanus sp.	4				1	
Dinoplax sp.	8	174	1		34	
Fissurella natalensis	52	22	6	13	21	7
Haliotis midae						
Haliotis spadicea					2	
H. species						
Turbo coronatus		42	18			4
Turbo natalensis		18			2	
Turbo sarmaticus		14				
Charonia lampas pustulata						
Burnupena papyracea lagenaria	6	17	28	3	5	2
Oxystele sinensis						
Oxystele tabularis						
Oxystele tigrina						
Oxystele variegata		2	4			
Oxystele sp.						
Thais capensis		2	1		2	
Thais sp.						
Nerita albicilla						
Nerita plicata						
Nerita sp.		+		+		
Patella barbara	17	18	3	3		2
Patella cochlear						
Patella granularis	81	38	34	78	8	8
Patella longicosta	18	3	8	6	99	2
Patella miniata		94	2		10	5
Patella oculus	342	405	207	177	1	117

	Locality: Ntlonyane					
	Meal number					
	7	8	9	10	11	12
Patella tabularis		45	35	1	95	3
Patella concolor		85	55	19	40	253
Patella sp.						
Siphonaria capensis			6	3		
Helcion pectunculus		2				2
Helcion pruinosis				11		7
Cellana capensis	2 362	602	1 309	1 562	268	391
Perna perna	1		2			
Septifer bilocularis						
Crassostrea cucullata			4			
Crassostrea margaritacea						
Pyura stolonifera		+		+	+	
Octopus						
Total number of shells	2 891	1 583	1 723	1 876	588	803
Total Weight of full shells (kg)	5,5	2,78	2,89	2,6	3,34	2,32

	Locality: Mbotyi									
	Meal number									
	13	14	15	16	17	18	19	20	21	22
Panulirus sp.										
Balanus sp. fragments	3		8		2	49				8
Dinoplax sp. plates				7			6	1	21	184
Fissurella natalensis	19		2	50	3			3	23	13
Haliotis midae										
Haliotis spadicea										
H. species										
Turbo coronatus										
Turbo natalensis										
Turbo sarmaticus										
Charonia lampas pustulata										
Burnupena papyracea lagenaria	23		2	3			3	3	8	7
Oxystele sinensis										
Oxystele tabularis										
Oxystele tigrina			4							
Oxystele variegata										
Oxystele sp.										
Thais capensis				1					6	2
Thais sp.										
Drupa sp.										1
Nerita albicilla										
Nerita plicata										
Nerita sp.		+		+				+		
Patella barbara	1		6	24			1		11	2
Patella cochlear	1					+		1		
Patella granularis	63		11	80			26	16	174	29
Patella longicosta	4		3	15					6	3
Patella miniata	15	3	39	22	1		23	34	32	3

	Locality: Mbotyi									
	Meal number									
	13	14	15	16	17	18	19	20	21	22
Patella oculus		1	17	6	4		4		9	1
Patella tabularis	12	1	1					2	19	
Patella concolor	61	5	52	36	7		13	50	45	29
Patella sp.										
Siphonaria capensis			8	1				6	14	6
Helcion pectunculus								6		
Helcion pruinosis							1	12	25	1
Cellana capensis	454	1	382	244	1		1 097	1 268	1 095	224
Perna perna	109	4	18	315	782	1 846			3	2
Septifer bilocularis			2						9	13
Crassostrea cucullata		75	28	31					9	57
Crassostrea margaritacae										
Pyura stolonifera										
Octopus										
Total number of shells	765	90	583	835	800	1 895	1 174	1 402	1 509	585
Total Weight of full shells (kg)	2	1,65	1,25	3,9	6	6,1	1,5	2,3	3,15	2,15

APPENDIX 2.

Vernacular names of shellfish	XHOSA			BOMVANA		MPONDO		
	Kobonqaba	Shixini	Dwessa	Ntlonyane	Mtonjane	Hluleka	Mbotyi	Mzamba
Panulirus sp.	ikolofish	ikolofish	ikolofish	ikolofish	umnamvuni	ikolofish	isikhuphathi	isikhuphathi
Balanus sp.	intsikitsane	intseketsane		intsintsane	intsentsane	intsentsane	inkinkane isagwegwe	
Dinoplax sp.	umqwabulo	umqwabulo	umqwabulo	umqwabulo	umqwabulo	umqwabulo	umqwayiba	umqwabulo
Fissurella natalensis				unokrwece unonyekenyekana	unonyhekenyhekana	unyhekana	unonyheke	unongqojana
Haliotis midae	ingquba	ingquba	ingquma	ingquba		ingquma	isagwegwe	ibisholo
Haliotis spadicea	inyarala		inyarala	inyankala	inyarala	ingquma	ibisholo, ibitsholo	
Turbo coronatus				ikolokoqwane-		ingqoqo	iqhaso	iqhasa, igusha
Turbo natalensis		iqongwe		nyekenyekana, unokrakrayo ikolokoqwane	irocoba			
Turbo sarmaticus	iqongwe		iqongwe elikulu	iqongwe	iqongwe			iqhaso
Charonia lampas pustulata	inkongo	inkongo	inkongo	umhlaba	intlaba	inkongo	inkongo	inkongo
Burnupena papyracea lagenaria	inkongo			ikolokoqwane	igqoloza	ingqoqo	imbuzi	inkongo encinane
Oxystele sinensis	icakula	icakulo						
Oxystele tigrina			iqongwe	icakula				
Oxystele variegata				icakula	unotshiwutshiwu, icakula			
Thais capensis				unokazana	unokrakrayo	ingqoqo	inkongo	
Nerita albicilla				inthondolo				
Nerita plicata			iqongwe					

APPENDIX 2—*continued.*

Vernacular names of shellfish	XHOSA			BOMVANA		MPONDO		
	Kobonqaba	Shixini	Dwessa	Ntlonyane	Mtonjane	Hluleka	Mbotyi	Mzamba
Patella* cochlear	isigwegwe	isigwegwe	isigwegwe	umsilana	unomsilana	isigwegwe esimdaka or esimhlophe		
Patella granularis	isigwegwe	isigwegwe	isigwegwe	unokrwece		nondlandla		icakata
Patella longicosta	isigwegwe	isigwegwe	isigwegwe			isigwegwe esibomvu		
Patella miniata	isigwegwe	isigwegwe	isigwegwe			isagwegwe esimdaka	isazwezwe	
Patella tabularis	isigwegwe	isigwegwe	isigwegwe	umzawe		isagwegwe esimhlophe or esibomvu	umzawu umzayiwe	
Patella variabilis	isigwegwe	isigwegwe	isigwegwe	unokrwece ikolokoqwane	unojekecane	isagwegwe esimdaka	isagwegwe isincinci icakatho	impimpilizo icakata
Helcion pruinosis	isigwegwe	isigwegwe	isigwegwe			isagwegwe esimdaka		
Monodonta australis				umthondolo				iqhasa
Perna perna	imbaza	imbaza	imbaza	imbaza	imbaza	imbaza	imbaza	imbaza
Crassostrea cucullata							amaqoqoza, umqhoqhoqho	ukhwathi olincinci
Crassostrea margaritacae	imbatyisa	imbatyisa	imbatyisa	imbatyisa	isazwenge, imbatyisa	isazwembe, imbatyisa	imbatyisa	ukhwathi
Pyura stolonifera	isenene			isenene	isenene	isenene	isenene	isenene
Octopus	ingwane	ingwane	ingwane	ingwane	ingwane	ingwane	ingwane	ingwane

* All species of Patellidae all along the coast are *isigwegwe* or *isagwegwe*.